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Amendment to the Claims:

1. (currently amended) A method for forming matrix stabilized enzyme crystals resistant to degradation by proteolytic enzymes comprising the steps of ~~cross-linking~~ contacting a crystalline enzyme with at least one polymer having one or more reactive moieties and cross-linking the reactive moieties on said polymer with a multi-functional cross-linking agent, effective to form a cross-linked, net-like polymer structure to adhere to the crystal layer of the crystalline enzyme ~~using a multi-functional cross-linking reagent in an amount sufficient to form said matrix stabilized enzyme crystals which are resistant to degradation by proteolytic enzymes~~.

2. (currently amended) The method of claim 1, wherein the enzyme is selected from the group consisting of phenylalanine ammonia lyase, L-methionine-γ-lyase, lipases, and carboxypeptidase-A.

3. (original) The method of claim 1, wherein the enzyme is phenylalanine ammonia lyase.

4. (currently amended) The method of claim 1, wherein the multi-functional cross-linking reagent is a dialdehyde cross-linking reagent.

5. (currently amended) The method of claim 4, wherein the dialdehyde cross-linking reagent is a linear or branched dialdehyde.

6. (currently amended) The method of claim 4, wherein the dialdehyde cross-linking reagent is selected from the group consisting of substituted or unsubstituted glutaraldehyde (1,5-Pentanedial), malonaldehyde (1,3-Propanedial), succinaldehyde (1,4-Butanedial), adipaldehyde (1,6-Hexanedial), pimelaldehyde (1,7-Heptanedial).

7. (currently amended) The method of claim 4, wherein the dialdehyde cross-linking reagent is glutaraldehyde.

8. (original) The method of claim 1, wherein the multi-functional cross-linking reagent is used in a percent concentration of less than 2% (w/v).

9. (original) The method of claim 8, wherein the multi-functional cross-linking reagent is used in a percent concentration of 0.5% or less (w/v).

10. (original) The method of claim 9, wherein the multi-functional cross-linking reagent is used in a percent concentration of 0.2% or less (w/v).

11. (currently amended) The method of claim 1, wherein the polymer having one or more reactive moieties effective <u>to form a cross-linked, net-like polymer structure</u> to adhere to the crystal layer is a polyamino acid, a polycarbohydrate, a polystyrene, a polyacid, a polyol, a polyvinyl, a polyester, a polyurethane, a polyolefin, or a polyether.

12. (currently amended) The method of claim 11, wherein the polymer having one or more reactive moieties effective to form a cross-linked, net-like polymer structure to adhere to the crystal layer is a polyamino acid.

13. (original) The method of claim 12, wherein the polyamino acid is a polylysine, a polyamide, a polyglutamic acid, a polyaspartic acid, a copolymer of lysine and alanine, or a copolymer of lysine and phenylalanine.

14. (original) The method of claim 13, wherein the polyamino acid is polylysine.

15. (original) The method of claim 14, wherein said enzyme is phenylalanine ammonia lyase.

16. (original) The method of claim 14, wherein the multi-functional cross-linking reagent is used in a percent concentration of 0.5% or less (w/v).

17. (original) The method of claim 16, wherein the multi-functional cross-linking reagent is used in a percent concentration of 0.2% or less (w/v).

18. (original) Matrix stabilized enzyme crystals prepared according to the method of claim 1.

19. (original) Matrix stabilized enzyme crystals prepared according to the method of claim 14.

20. (original) Matrix stabilized enzyme crystals prepared according to the method of claim 15.

21. (currently amended) Matrix stabilized enzyme crystals of phenylalanine ammonia lyase comprising crystalline phenylalanine ammonia lyase ~~PAL~~ cross-linked with a bifunctional cross-linking agent in the presence of polylysine.

22. (original) The matrix stabilized enzyme crystals of claim 21, wherein said bifunctional cross-linking agent is glutaraldehyde.

23. (original) A method of treating hyperphenylalaninemia comprising administering a therapeutically effective amount of matrix stabilized enzyme crystals of phenylalanine ammonia lyase.

24. (currently amended) The method of claim 23, wherein said matrix stabilized enzyme crystals of phenylalanine ammonia lyase are stabilized by ~~cross-linking~~ polylysine ~~with phenylalanine ammonia lyase~~ cross-linked in the presence of less than 0.5% w/v bifunctional cross-linking agent.

25. (original) The method of claim 24, wherein said bifunctional cross-linking agent is glutaraldehyde.

26. (original) The method of claim 23, wherein the administration of matrix stabilized enzyme crystals of phenylalanine ammonia lyase is conducted by oral administration.